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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/665,993	09/18/2003	Raminderpal Singh	END920030032US1 (16704)	6599
7590	01/30/2006		EXAMINER MANDALA, VICTOR A	
Steven Fischman Scully, Scott, Murphy & Presser 400 Garden City Plaza Garden City, NY 11530			ART UNIT 2826	PAPER NUMBER

DATE MAILED: 01/30/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/665,993

Applicant(s)

SINGH ET AL.

Examiner

Victor A. Mandala Jr.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 21 November 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 5, 6 and 9-20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4, 7 and 8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-4, 7, & 8 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S.

Patent Application No. 2004/0222859 Hajimiri et al.

1. Referring to claim 1, a vertically stacked coplanar transmission line structure for an integrated circuit (IC) chip defining a closed ground return path, (Paragraph 0028, where the Lines #602, 604, & 606 are signal lines and in order for a signal to flow through a conductor there must be a potential applied to the ends of the conductor and where a circuit must be a closed circuit in order to operate), within the transmission line structure, comprising: a micro-strip pair of first, (Figure 5B #600A), and second vertically stacked coplanar conductors, (Figure 5B #600A), each first and second vertical stack comprising a metal layer, (Figure 5A #606), a next metal layer down, (Figure 5A #602), and an intermediate connecting via layer, (Figure 5A #604), in between the metal layer, (Figure 5A #606), and the next metal layer down, (Figure 5A #602), said intermediate connecting via layer, (Figure 5A #604), comprising a via bar, (Figure 5A #604), having a width dimension approximately equal to a width dimension of said first and second vertically stacked coplanar conductors, (Figure 5A #602 & 606), and having a length dimension approximately equal to a length dimension of said first and second vertically stacked coplanar conductors, (Figure 5A #602 & 606).

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2. Referring to claim 2, a transmission line structure, wherein each vertically stacked coplanar conductor comprises metal in the metal layer  $m(i)$ , (Figure 5A #606), metal in the next metal layer down  $m(i-1)$ , (Figure 5A #602), and metal in the intermediate connecting via layer, (Figure 5A #604).

3. Referring to claim 3, a transmission line structure, fabricated in upper metal layers of the IC chip, (lower metal layer #24b).

4. Referring to claim 4, a transmission line structure, wherein the intermediate connecting via layer comprises a single via bar, (Figure 5A #604), which extends across an entire width of the intermediate connecting via layer, (Figure 5A #604).

7. Referring to claim 7, a transmission line structure, wherein the micro-strip pair of first and second vertically stacked coplanar conductors comprise a differential positive and negative pair of transmission line conductors, (Paragraph 0028, where the Lines #602, 604, & 606 are signal lines and in order for a signal to flow through a conductor there must be a potential applied to the ends of the conductor).

8. Referring to claim 8, a transmission line structure, wherein the micro-strip pair of first and second vertically stacked coplanar conductors comprise signal and ground transmission line conductors, (Paragraph 0028, where the Lines #602, 604, & 606 are signal lines and in order for a signal to flow through a conductor there must be a potential applied to the ends of the conductor).

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***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

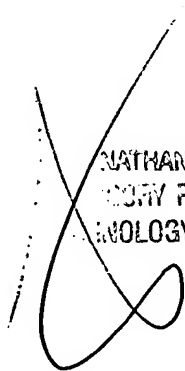
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Victor A. Mandala Jr. whose telephone number is (571) 272-1918. The examiner can normally be reached on Monday through Thursday from 8am till 6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nathan J. Flynn can be reached on (571) 272-1915. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

VAMJ  
1/10/06



NATHAN J. FLYNN  
SENIOR PATENT EXAMINER  
TECHNOLOGY CENTER 2800